Science Inquiry 4 – Perturbation Study

Form a group of 3-4 students. This inquiry involves the following tasks:

1. Go to the bus stop, and find a location on seat close to where the bus is most likely to stop.
2. Use a sound level meter to measure the background sound when there is no traffic at the bus stop.
3. As a bus approaches, read the meter and record readings when you first see the bus, as it slows down and as it come to rest.
4. Repeat the measures as the bus begins to move again, as it moves off, and at the moment when you last see it.

Reflect on the following points for class discussion:

A. What were the objects at the focus of this study?
B. What knowledge was produced about the objects at the focus of this inquiry activity?
C. How was this knowledge produced? What/where were the variables? What/where was the control over variables in this inquiry?
D. In scientific terms how would you describe the techniques used to produce this knowledge?
E. Is the knowledge produced scientific knowledge? Explain your answer.
F. What are some other examples where this type of science inquiry may be useful in school science?